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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,845	12/14/2001	David Kloper	115426-0949	7445

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BELL, BOYD & LLOYD LLP
P.O. BOX 1135
CHICAGO, IL 60690

EXAMINER	
HOM, SHICK C	

ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
12/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/016,845	KLOPER, DAVID	
	Examiner	Art Unit	
	Shick C. Hom	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/9/07*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,7-11,14-18,21-25,28-32,35-39 and 42* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,7-11,14-18,21-25,28-32,35-39 and 42* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/9/07 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-4, 7-11, 14-18, 21-25, 28-32, 35-39 and 42 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

3. Claims 1-4, 7-11, 14-18, 21-25, and 28-32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 8, 15, 22, 29 lines 10, 9, 12, 11, 12, respectively, which recite "the satellite" lack clear antecedent basis because no satellite have been previously recited in the claims and therefore the limitation is not clearly understood; further, in claims 1, 8, 15, 22, 29 lines 11, 10, 13, 12, 13, respectively, which recite "a satellite" is not clear as to whether it is reciting ---the satellite--- of lines 10, 9, 12, 11, 12, respectively. Claims 2-4, 7, 9-11, 14, 16-18, 21, 23-25, 28, 30-32, 35 are rejected under 35 U.S.C. 112, second paragraph because they depend from rejected claims 1, 8, 15, 22, and 29, respectively.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1, 3-4, 8, 11, 15, 17-18, 22, 25, 29, 32, 36, and 38-39 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Prismantas et al. (2002/0155811) in view of Dent et al. (6,243,587).

Regarding claims 1, 8, 15, 22, 29, 36:

Prismantas et al. disclose a method for a radio frequency communications system, the method comprising:

selecting a transmission channel class that includes at least one of transmission rate, modulation scheme, and coding scheme; transmitting a ranging message according to the selected transmission channel class over a channel (paragraph 0026 recites the media access control MAC layer selecting the channel frequency, modulation, code and rate to be used which clearly anticipate the step of selecting transmission channel class that includes at least one of transmission rate, modulation scheme, and coding scheme and the step of transmitting a ranging message according to the transmission channel class); and

selectively modifying the transmission channel class based upon characteristics of the channel (paragraph 0018 recites using one or more modulations scheme, i.e. 64 QAM, 16 QAM, QPSK or BPSK, for transmission which can change dynamically based upon many factors; paragraph 0020 recites the step of interference detection to determine the signal strength; and

Fig. 2 shows selectively modifying the transmission channel class based upon characteristics of interferences of the channel which clearly anticipate the step of selectively modifying the transmission channel class based upon the characteristics of the channel and the use of a ranging message).

Regarding claims 3-4, 11, 17-18, 25, 32, 38-39:

Prismantas et al. disclose wherein the transmitting step and the modifying step are iteratively performed to achieve an improved transmission class and wherein the modifying step is performed periodically in response to a change in the characteristics of the channel (see paragraph 0024 which recite the determining and using the timing and reoccurring period or repetitiveness of the interference to interference mitigation clearly reads on the iterative and periodical step to achieve an improved transmission class and in response to a change in the characteristics of the channel).

Prismantas et al. disclose all the subject matter of the claimed invention with the exception of receiving a request to perform re-ranging based upon re-ranging criteria that includes at least one of location of the satellite, and the characteristics of the channel, wherein the radio frequency

communications system includes a satellite configured to support two-way communication as in claims 1, 8, 15, 22, 29, and 36.

Dent et al. from the same or similar fields of endeavor teach that it is known to provide the step of receiving a request to perform re-ranging based upon re-ranging criteria that includes at least one of location of the satellite, and the characteristics of the channel, wherein the radio frequency communications system includes a satellite configured to support two-way communication (col. 2 line 37 to col. 3 line 15 recite determining the first, second, and third, fourth phase differences of the satellite to obtain range differences clearly reads on re-ranging based upon re-ranging criteria that includes at least one of location of the satellite, and the characteristics of the channel, wherein the radio frequency communications system includes a satellite configured to support two-way communication).

Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the step of receiving a request to perform re-ranging based upon re-ranging criteria that includes at least one of location of the satellite, and the characteristics of the channel, wherein the radio frequency communications system

includes a satellite configured to support two-way communication as taught by Dent et al. in the communications apparatus and method of Prismantas et al.

The step of receiving a request to perform re-ranging based upon re-ranging criteria that includes at least one of location of the satellite, and the characteristics of the channel, wherein the radio frequency communications system includes a satellite configured to support two-way communication can be implemented by connecting the means and providing the step of re-ranging based upon re-ranging criteria that includes at least one of location of the satellite, and the characteristics of the channel, wherein the radio frequency communications system includes a satellite configured to support two-way communication of Dent et al. in the system and method of Prismantas et al.

The motivation for providing the step of receiving a request to perform re-ranging based upon re-ranging criteria that includes at least one of location of the satellite, and the characteristics of the channel, wherein the radio frequency communications system includes a satellite configured to support two-way communication as taught by Dent et al. in the communication system and method of Prismantas et al. being that it provides the desirable added feature of two-way satellite

communication and more efficiency for the system since the system better optimize the communication channels with ranging and re-ranging based on channel characteristics at the receiving end.

6. Claims 10, 24, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prismantas et al. (2002/0155811) and Dent (6,243,587) in view of Enns et al. (2003/0161263).

For claims 10, 24, and 31, Prismantas et al. and Dent et al. disclose the system and method described in paragraph 5 of this office action. Prismantas et al. and Dent et al. disclose all the subject matter of the claimed invention with the exception of wherein the transmission rate is increased to a value that is sustainable by the channel as in claims 10, 24, and 31.

Enns et al. from the same or similar fields of endeavor teach that it is known to provide wherein the transmission rate is increased to a value that is sustainable by the channel (see paragraph 0018 which recite accelerating the sessions to a maximum rate for each transmission) as in claims 10, 24, 31.

Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide wherein the transmission rate is increased to a value that is sustainable by the channel as taught by Enns et al. in the communications method and apparatus of Prismantas et al. and Dent et al.

The transmission rate being increased to a value that is sustainable by the channel can be implemented by connecting the processor for accelerating the session and the two-way communication link to the satellite of Enns et al. into the transmission circuit and system, respectively, of Prismantas et al. and Dent et al.

The motivation for using the processor for accelerating the session as taught by Enns et al. in the communication method and apparatus of Prismantas et al. and Dent et al. being that it provides more efficiency for the system since the system can accelerate the transmission rate of selected communication sessions using the processor.

7. Claims 2, 7, 9, 14, 16, 21, 23, 28, 30, 35, 37, 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Prismantas et al. (2002/0155811) and Dent et al. (6,243,587) in view of Parmenter (6,615,052).

For claims 2, 7, 9, 14, 16, 21, 23, 28, 30, 35, 37, 42, Prismantas et al. and Dent et al. disclose the system and method described in paragraph 5 of this office action. Prismantas et al. and Dent et al. disclose all the subject matter of the claimed invention with the exception of storing parameters associated with the transmission of the message over the channel, the parameters including at least one of power information and timing information associated with the transmission of the message and altering the transmission channel class for load balancing.

Parmenter from the same or similar fields of endeavor teach that it is known to provide the step of storing parameters associated with the transmission of the message over the channel, the parameters including at least one of power information and timing information associated with the transmission of the message and altering the transmission channel class for load balancing (see abstract which recite the used of pre-stored power parameters for the active transmission channel to adjust the output power and col. 5 lines 44-65 which

recite adjusting the loading to achieve a predetermined minimum BER).

Thus, it would have been obvious to the person having ordinary skill in the art at the time the invention was made to provide the step of storing parameters associated with the transmission of the message over the channel, the parameters including at least one of power information and timing information associated with the transmission of the message and altering the transmission channel class for load balancing as taught by Parmenter in the communications method and apparatus of Prismantas et al. and Dent et al.

The step of storing parameters associated with the transmission of the message over the channel, the parameters including at least one of power information and timing information associated with the transmission of the message and altering the transmission channel class for load balancing can be implemented by connecting the means for power control including the pre-stored power parameters and predetermined minimum BER of Parmenter into the transmitter of Prismantas et al. and Dent et al.

The motivation for providing means for power control and load balancing as taught by Parmenter in the communication

method and apparatus of Prismantas et al. and Dent et al. being that it provides more efficiency for the system since the system can control the transmission power to achieve predetermined minimum error rate at the receiving end.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Albuquerque Moraes et al. disclose an earth station acquisition system for satellite communications.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shick C. Hom whose telephone number is 571-272-3173. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Pham Chi can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SH SH

CHI PHAM
SUPERVISORY PATENT EXAMINER 11/30/07